

A1 a second vacuum pump connected to said gas-introducing part so as to evacuate the reactant gas from said gas-introducing part.

A2 7. (Amended) The plasma processing apparatus as claimed in claim 6, wherein said dielectric plate has an inlet port connected to said gas passage so as to supply the reactant gas to said gas passage, and said gas passage has an outlet port to which said second vacuum pump is connected.

See the attached Appendix for the changes made to effect the above claims.

Please add the following new claims:

A3 -- 14. (New) A plasma processing apparatus for applying a plasma process to an object to be processed, the plasma processing apparatus comprising:

a process chamber in which the object to be processed is subjected to the plasma process;

a gas-introducing part connected to said process chamber so as to introduce a reactant gas into said process chamber;

a first vacuum pump connected to said process chamber so as to evacuate gas from said process chamber so that said process chamber is maintained at a negative pressure; and

a gas-evacuating arrangement connected to said gas-introducing part so as to evacuate the reactant gas from said gas-introducing part,

wherein said gas-evacuating arrangement comprises a bypass passage which connects said gas-introducing part to said first vacuum pump by bypassing said process chamber.

15. (New) The plasma processing apparatus as claimed in claim 14, wherein said gas-introducing part has an annular shape and is incorporated into a sidewall of said process chamber, said gas-introducing part has a plurality of circumferentially arranged nozzles through which the reactant gas is introduced into said process chamber.

16. (New) The plasma processing apparatus as claimed in claim 15, wherein said gas-introducing part comprises:

50 61 at least one inlet port from which the reactant gas is supplied;

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an annular gas passage connected to said inlet port so that the reactant gas supplied from the inlet port is supplied to said plurality of nozzles by flowing through said annular gas passage; and

an outlet port provided to said annular gas passage to that said gas-evacuating arrangement is connected thereto.

17. (New) The plasma processing apparatus as claimed in claim 14, wherein said gas-introducing part comprises a dielectric plate and a shower plate provided on a top of said process chamber so as to introduce the reactant gas from the top of said process chamber, a gas passage being formed between said dielectric plate and said shower plate so that the reactant gas flows through the gas passage and is introduced into said process chamber through said shower plate.

18. (New) The plasma processing apparatus as claimed in claim 17, wherein said dielectric plate has an inlet port connected to said gas passage so as to supply the reactant gas to said gas passage, and said gas passage has an outlet port to which said gas-evacuating arrangement is connected.

19. (New) The plasma processing apparatus as claimed in claim 14, further comprising a slot antenna having a plurality of slits so as to guide a microwave having a predetermined frequency which is determined by the plasma process to be applied to the object to be processed.

20. (New) The plasma processing apparatus as claimed in claim 19, wherein a density of the slits is substantially uniform in a radial direction of said slot antenna. --